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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,329	08/29/2001	Charles Buckley	BLD920010026US1	6579

23550 7590 10/11/2005

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EXAMINER	
REILLY, SEAN M	

ART UNIT	PAPER NUMBER
2153	

DATE MAILED: 10/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/941,329	BUCKLEY ET AL.	
	Examiner	Art Unit	
	Sean Reilly	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 October 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office action is in response to Applicant's appeal brief filed 7/20/2005. Examiner has withdrawn the finality of the office action mailed 3/16/2005 in order to more clearly address the terminal concentrator and multiplexer limitations of claims 12-25. Accordingly this action is made **NON-FINAL**. Claims 1-26 are presented for examination.

Drawings

The drawings are objected to because the components of figures 1 and 2 are not labeled in such a way that one of ordinary skill in the art could determine the functionality of each component without referring to the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1, 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. (U.S. Patent Number 6,691,154, hereinafter "Zhu") and Powderly et al. (U.S. Patent Number 6,560,641, hereinafter "Powderly") and Sarin et al. ("Computer-based real-time conferencing systems", hereinafter "Sarin").

In considering claims 1, 4, and 5 Zhu discloses a method for managing a plurality of console devices over a network, comprising the steps of:

- providing a plurality of console devices interconnected over a hardwired network (Col 2, lines 63-65);
- checking an availability of one of the console devices (Col 4, lines 1-6);
- requesting a shared session of the checked console device (Col 4, lines 5 -6);
- starting the shared session (Col 3, lines 55-58) via an addressable connection (Col 3, lines 54-55);
- accessing the console device on a peer to peer basis over the hardwired network during the shared session (Col 5, lines 42-47).
- performing system console access of the console device (Col 5, lines 42-47),

- wherein the software layer of the console device can be accessed (Col 5, lines 42-47).

In considering accessing the hardware layer of the console device, Zhu fails to disclose a user is capable of accessing the hardware layer of a console device. However, it was well known in the art at the time of the invention to remotely control both the hardware and software layers of console device, as evidenced by Powderly. In an analogous art, Powderly discloses remotely controlling a console device where both the hardware and software layers of the console device can be accessed through an adapter card placed in the console device (Powderly Col 5, lines 33-43). In the Powderly system remote access functionality is not provided by any software running within OS but rather through the adapter card placed within the console device. Zhu discloses that remote access console access may be provided through either *hardware*, software and/or a combination of the two (Zhu Col 6, lines 65-67 and Col 8, lines 6-13). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the adapter card disclosed by Powderly within the Zhu system since Zhu discloses remote console access can be through hardware (Zhu Col 6, lines 65-67) and further such a configuration allows for remote control of the console device even when the operating system of the console device is unavailable (Powderly Col 5, lines 38-43).

In considering the creation of shared remote control sessions, while Zhu discloses a method for requesting a shared session of the checked console device, Zhu fails to disclose requesting a shared session of the checked console device from *a current user* of the console device. However, it was widely known in the art that there are various methods for creating collaborative-shared sessions as evidenced by Sarin. Sarin discloses a collaboration system

where users request to join a collaborative-shared session and the request is approved or denied by a participant in the currently in the session (Sarin pg 38, Col 1, ¶ 1). Thus, given the teachings of Sarin, it would have been obvious to one of ordinary skill in the art at the time of the invention to design the Zhu system to allow a user already connected to a console device to accept or reject another user's request for a shared session, in order to allow a user already connected to a console device to restrict access to the shared session on a case by case basis.

In considering claim 3, Zhu discloses the method of claim 1, where the shared session is started from a remote location (Col 2, lines 19-21).

2. In considering claim 6, Zhu discloses the method of claim 7 wherein the console devices are computer systems (Col 2, lines 19-21).

3. Claims 2 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. (U.S. Patent Number 6,691,154, hereinafter "Zhu") and Powderly et al. (U.S. Patent Number 6,560,641, hereinafter "Powderly") and Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld") and Sarin et al. ("Computer-based real-time conferencing systems", hereinafter "Sarin").

In considering claims 2 and 7-8, Zhu discloses a method for managing a plurality of console devices over a network, comprising the steps of:

- providing a plurality of console devices interconnected over a network (Col 2, lines 63-65);
- checking an availability of one of the console devices (Col 4, lines 1-6);
- requesting a shared session of the checked console device (Col 4, lines 5 -6);

- starting the shared session (Col 3, lines 55-58) via an addressable connection (Col 3, lines 54-55);
- accessing the console device on a peer to peer basis over the network during the shared session (Col 5, lines 42-47).
- performing system console access of the console device (Col 5, lines 42-47).
- wherein the software layer of the console device can be accessed (Col 5, lines 42-47).

In considering accessing the hardware layer of the console device, Zhu fails to disclose a user is capable of accessing the hardware layer of a console device. However, it was well known in the art at the time of the invention to remotely control both the hardware and software layers of console device, as evidenced by Powderly. In an analogous art, Powderly discloses remotely controlling a console device where both the hardware and software layers of the console device can be accessed through an adapter card placed in the console device (Powderly Col 5, lines 33-43). In the Powderly system remote access functionality is not provided by any software running within OS but rather through the adapter card placed within the console device. Zhu discloses that remote access console access may be provided through either *hardware*, software and/or a combination of the two (Zhu Col 6, lines 65-67 and Col 8, lines 6-13). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the adapter card disclosed by Powderly within the Zhu system since Zhu discloses remote console access can be through hardware (Zhu Col 6, lines 65-67) and further such a configuration allows for remote control of the console device even when the operating system of the console device is unavailable (Powderly Col 5, lines 38-43).

In considering serial port networks, while Zhu discloses a method for managing a plurality of console devices over a network as discussed above, Zhu fails to discuss the use of a hard-wired *serial port network*. Nevertheless, the use of various network connections such as Ethernet, serial, etc. was well known in the art at the time of the invention, as evidenced by Isfeld. Isfeld disclosed a network system that uses numerous network connections including serial port networks (Col 4, line 62 – Col 5, line 4). Thus, given the teaching of Isfeld, it would have been obvious to one of ordinary skill in the art to design the Zhu system to incorporate various network connections including serial port connections, in order to accommodate multiple networking and console devices which use different types of network interfaces and given that Zhu discloses that the system can be implemented using other computer systems and/or computer architectures (Zhu Col 7, lines 9-10).

In considering the creation of shared remote control sessions, while Zhu discloses a method for requesting a shared session of the checked console device, Zhu fails to disclose requesting a shared session of the checked console device from *a current user* of the console device. However, it was widely known in the art at the time of the invention that there are various methods for creating collaborative-shared sessions, as evidenced by Sarin. Sarin discloses a collaboration system where users request to join a collaborative-shared session and the request is approved or denied by a participant in the currently in the session (Sarin pg 38, Col 1, ¶ 1). Thus, given the teachings of Sarin, it would have been obvious to one of ordinary skill in the art to design the Zhu system to allow a user already connected to a console device to accept or reject another user's request for a shared session, in order to allow a user already connected to a console device to restrict access to the shared session on a case by case basis.

In considering claim 8, Zhu discloses the method of claim 7 wherein the console devices are computer systems (Col 2, lines 19-21).

4. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. (U.S. Patent Number 6,691,154, hereinafter "Zhu") and Powderly et al. (U.S. Patent Number 6,560,641, hereinafter "Powderly") and Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld") and Thompson et al. (U.S. Patent Application Publication Number 2002/0075303, hereinafter "Thompson").

In considering claims 9-11, Zhu discloses a method for managing a plurality of console devices over a network, comprising the steps of:

- providing a plurality of console devices interconnected over a hardwired network (Col 2, lines 63-65);
- requesting a shared session of one of the console devices (Col 4, lines 5 -6);
- starting the shared session (Col 3, lines 55-58) via an addressable connection (Col 3, lines 54-55);
- accessing the console device on a peer to peer basis over the network during the shared session (Col 5, lines 42-47)
- wherein the software layer of the console device can be accessed (Col 5, lines 42-47).

In considering accessing the hardware layer of the console device, Zhu fails to disclose a user is capable of accessing the hardware layer of a console device. However, it was well known in the art at the time of the invention to remotely control both the hardware and software layers

of console device, as evidenced by Powderly. In an analogous art, Powderly discloses remotely controlling a console device where both the hardware and software layers of the console device can be accessed through an adapter card placed in the console device (Powderly Col 5, lines 33-43). In the Powderly system remote access functionality is not provided by any software running within OS but rather through the adapter card placed within the console device. Zhu discloses that remote access console access may be provided through either *hardware*, software and/or a combination of the two (Zhu Col 6, lines 65-67 and Col 8, lines 6-13). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the adapter card disclosed by Powderly within the Zhu system since Zhu discloses remote console access can be through hardware (Zhu Col 6, lines 65-67) and further such a configuration allows for remote control of the console device even when the operating system of the console device is unavailable (Powderly Col 5, lines 38-43).

In considering hardwired serial port networks, while Zhu discloses a method for managing a plurality of console devices over a network as discussed above, specifically over an addressable IP-based network such as the internet (Col 3, lines 54-55), Zhu fails to discuss the use of a *hardwired serial port network*. However, the use of various network connections such as Ethernet, serial, etc. connected in a hybrid form was well known in the art as evidenced by Isfeld. Isfeld discloses a hybrid network system (Col 4, line 56) that uses numerous network connections including serial ports (Col 4, line 62 – Col 5, line 4). Thus, given the teaching of Isfeld, it would have been obvious to one of ordinary skill in the art to design the Zhu system to incorporate a hybrid of network connections, including Ethernet and serial port networks, in order to accommodate multiple networking and console devices which use different types of

network interfaces given that Zhu discloses that the system can be implemented using other computer systems and/or computer architectures (Zhu Col 7, lines 9-10).

In considering the creation of shared remote control sessions, while Zhu discloses a method for requesting a shared session of one of the console devices, Zhu fails to disclose *a current user* of one of the console devices inviting a new user to join a shared session of the console device. However, it is widely known in the art that there are various methods for creating collaborative-shared sessions as evidenced by Thompson. Thompson discloses a collaboration method where a user in a collaborative shared session invites other users to join the shared session (Thompson ¶115, lines 16-21). Thus, given the teachings of Thompson, it would have been obvious to one of ordinary skill in the art to design the Zhu system to allow a user already connected to a console device to invite another user into a shared session, in order to allow a user already connected to a console device to notify other users that a shared session exits and that their presence is requested.

5. Claims 12, 15-18, 20, 21-22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. (U.S. Patent Number 6,691,154, hereinafter "Zhu") and Powderly et al. (U.S. Patent Number 6,560,641, hereinafter "Powderly") and Partridge et al. (U.S. Patent Number 6,160,819; hereinafter "Partridge").

In considering claims 12 and 20, Zhu discloses a system for managing a console device in a network, comprising:

- a system server (Remote conferencing server) (Figure 1, Component 102);
- a console device connected to system server (Figure 1, Component 106);

- a program product stored on the system server for allowing users to open a shared session and access the console device (Col 7, lines 56-65 and Col 5, lines 42-47);
- wherein the software layer of the console device can be accessed (Col 5, lines 42-47).

In considering accessing the hardware layer of the console device, Zhu fails to disclose a user is capable of accessing the hardware layer of a console device. However, it was well known in the art at the time of the invention to remotely control both the hardware and software layers of console device, as evidenced by Powderly. In an analogous art, Powderly discloses remotely controlling a console device where both the hardware and software layers of the console device can be accessed through an adapter card placed in the console device (Powderly Col 5, lines 33-43). In the Powderly system remote access functionality is not provided by any software running within OS but rather through the adapter card placed within the console device. Zhu discloses that remote access console access may be provided through either *hardware*, software and/or a combination of the two (Zhu Col 6, lines 65-67 and Col 8, lines 6-13). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the adapter card disclosed by Powderly within the Zhu system since Zhu discloses remote console access can be through hardware (Zhu Col 6, lines 65-67) and further such a configuration allows for remote control of the console device even when the operating system of the console device is unavailable (Powderly Col 5, lines 38-43).

Zhu also failed to disclose that a terminal concentrator server is connected to the system server, a multiplexer is connected to the terminal concentrator server, and the console device is connected to the multiplexer. Nonetheless it was widely known in the art at the time of the

invention to connect various devices through a terminal concentrator server and multiplexer, as evidenced by Partridge. In a similar networking system, Partridge disclosed a networking system where console devices (e.g. Figure 1, Computers 102-108) are connected to a multiplexer (Figure 1, Component 112) and the multiplexer is connected to a terminal concentrator server (Figure 1, Component 114) (also see Col 5, lines 49-54). Partridge further disclosed that such a configuration allows for high speed, low latency data transmission and is especially useful in conferencing systems (Col 5, lines 56-59). Thus, given the teachings of Partridge, it would have been obvious to one of ordinary skill in the art at the time of the invention modify the system of Zhu to include a multiplexer and terminal concentrator between the console device and system server, since such a configuration reduces network latency and is especially useful in conferencing systems such as the remote control conferencing system of Zhu.

In considering claims 15 and 24, Zhu discloses that the system server and console devices are connected via an addressable connection (Col 3, lines 55-58).

In considering claims 16 and 22, Zhu discloses the systems of claims 12 and 20 wherein the console device is a computer system (Figure 1).

In considering claims 17 and 21, Zhu discloses the systems of claims 12 and 20 wherein the shared session is opened via an addressable connection (Col 3, lines 55-58).

In considering claim 18, Zhu discloses the system of claim 1, wherein the console device is accessed by the users on a peer to peer basis (Col 5, lines 42-47).

6. Claims 13-14, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. (U.S. Patent Number 6,691,154, hereinafter "Zhu") and Powderly et al. (U.S. Patent Number 6,560,641, hereinafter "Powderly") and Partridge et al. (U.S. Patent Number 6,160,819; hereinafter "Partridge") as applied to claims 12 and 20 above, and in further view of Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld").

In considering claims 13-14 and 23, while Zhu discloses a method for managing a plurality of console devices over a network as discussed above, Zhu fails to discuss the use of a *serial port network*. However, the use of various network connections such as Ethernet, serial, etc. is well known in the art as evidenced by Isfeld. Isfeld discloses a hybrid network system (Col 4, line 56) that uses numerous network connections including serial ports (Col 4, line 62 – Col 5, line 4). Thus, given the teaching of Isfeld, it would have been obvious to one of ordinary skill in the art to design the Zhu system to incorporate a variety of network connections, including serial port networks, in order to accommodate multiple networking and console devices which use different types of network interfaces.

7. Claims 19 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. (U.S. Patent Number 6,691,154, hereinafter "Zhu") and Powderly et al. (U.S. Patent Number 6,560,641, hereinafter "Powderly") and Partridge et al. (U.S. Patent Number 6,160,819; hereinafter "Partridge") as applied to claims 12 and 20 above, and in further view of:

- Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld");
- Sarin et al. ("Computer-based real-time conferencing systems", hereinafter "Sarin").

- Thompson et al. (U.S. Patent Application Publication Number 2002/0075303, hereinafter "Thompson").

In considering serial port networks, while Zhu discloses a method for managing a plurality of console devices over a network as discussed above, Zhu fails to discuss the use of a *serial port network*. However, the use of various network connections such as Ethernet, serial, etc. was well known in the art as evidenced by Isfeld. Isfeld discloses a hybrid network system (Col 4, line 56) that uses numerous network connections including serial ports (Col 4, line 62 – Col 5, line 4). Thus, given the teaching of Isfeld, it would have been obvious to one of ordinary skill in the art to design the hu system to incorporate a variety of network connections, including serial port networks, in order to accommodate multiple networking and console devices which use different types of network interfaces.

In considering the creation of shared remote control sessions, while Zhu discloses a method for requesting a shared session of one of the console devices (Col 10, lines 54-58), Zhu fails to disclose *a current user* of one of the console devices inviting a new user to join a shared session of the console device. However, it is widely known in the art that there are various methods for creating collaborative-shared sessions as evidenced by Thompson. Thompson discloses a collaboration method where a user in a collaborative shared session invites other users to join the shared session (Thompson ¶115, lines 16-21). Thus, given the teachings of Thompson, it would have been obvious to one of ordinary skill in the art to design the Zhu system to allow a user already connected to a console device to invite another user into a shared session, in order to allow a user already connected to a console device to notify other users that a shared session exits and that their presence is requested.

In further considering the creation of shared remote control sessions, Zhu fails to disclose requesting a shared session of a console device from *a current user* of a console device. However, it is widely known in the art that there are various methods for creating collaborative-shared sessions as evidenced by Sarin. Sarin discloses a collaboration system where users request to join a collaborative-shared session and the request is approved or denied by a participant in the currently in the session (Sarin pg 38, Col 1, ¶ 1). Thus, given the teachings of Sarin, it would have been obvious to one of ordinary skill in the art to design the Zhu system to allow a user already connected to a console device to accept or reject another user's request for a shared session, in order to allow a user already connected to a console device to restrict access to the shared session on a case by case basis.

Therefore Zhu, Powderly, and Partridge in view of Isfeld, Sarin, and Thompson discloses a program product stored on a recordable medium for managing a plurality of console devices interconnected over a hardwired serial port network, which when executed, comprises:

- program code configured to access one of a plurality of console devices (Zhu, Col 7, lines 56-65 and Col 5, lines 42-47) on a peer to peer basis (Zhu Col 5, lines 42-47) over a hardwired serial port network (Isfeld Col 4, line 64);
- program code configured to invite a user to join a shared session of one of a plurality of console devices (Thompson ¶115, lines 16-21) interconnected over a hardwired serial port network (Isfeld Col 4, line 64);
- program code configured to request a shared session from a current user of one of a plurality of console devices (Sarin pg 38, Col 1, ¶ 1) interconnected over a hardwired serial port network (Isfeld Col 4, line 64);

- program code configured to delegate control of a console device during a shared session (Zhu, Col 6, lines 47-60);
- and program code configured to regain delegated control of a console device (Zhu, Col 6, lines 47-60) and (Sarin pg 38 Col 1, last ¶ completed in Col 2). Zhu does not explicitly state regaining delegated control however Sarin does explicitly state such delegation through a chairperson.
- wherein both the hardware and software layer of the console device can be accessed (Powderly Col 5, lines 33-43).

8. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al. (U.S. Patent Number 6587125, hereinafter "Paroz"), and

- Powderly et al. (U.S. Patent Number 6,560,641, hereinafter "Powderly");
- Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld");
- Sarin et al. ("Computer-based real-time conferencing systems", hereinafter "Sarin").
- Thompson et al. (U.S. Patent Application Publication Number 2002/0075303, hereinafter "Thompson").

Claim 26 is rejected using similar rationale as applied to claims 19 and 25.

9. Claims 1, 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al. (U.S. Patent Number 6587125, hereinafter "Paroz") and Powderly et al. (U.S. Patent Number 6,560,641, hereinafter "Powderly") and Sarin et al. ("Computer-based real-time conferencing systems", hereinafter "Sarin").

In considering claims 1, 4, and 5 Paroz discloses a method for managing a plurality of console devices over a network, comprising the steps of:

- providing a plurality of console devices interconnected over a hardwired network (Figure 1, Component 17) (Col 7, lines 51-54, first computing devices);
- checking an availability of one of the console devices (Col 8, lines 16-18);
- requesting a shared session of the checked console device (Col 8, lines 12-15);
- starting the shared session (Col 8, lines 19-24) via an addressable connection (Col 7, lines 48-51);
- accessing the console device on a peer to peer basis over the hardwired network during the shared session (Col 7, lines 1-4).
- performing system console access of the console device (Col 8, lines 34-39),
- wherein the software layer of the console device can be accessed (Col 8, lines 34-39).

In considering accessing the hardware layer of the console device, Paroz fails to disclose a user is capable of accessing the hardware layer of a console device. However, it was well known in the art at the time of the invention to remotely control both the hardware and software layers of console device, as evidenced by Powderly. In an analogous art, Powderly discloses remotely controlling a console device where both the hardware and software layers of the

console device can be accessed through an adapter card placed in the console device (Powderly Col 5, lines 33-43). In the Powderly system remote access functionality is not provided by any software running within OS but rather through the adapter card placed within the console device which allows for control of the hardware layer. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the adapter card disclosed by Powderly within the Paroz system since such a configuration allows for remote control of the console device even when the operating system of the console device is unavailable (Powderly Col 5, lines 38-43).

In further considering the creation of shared remote control sessions, Paroz fails to disclose requesting a shared session of a console device from *a current user* of a console device. However, it is widely known in the art that there are various methods for creating collaborative-shared sessions as evidenced by Sarin. Sarin discloses a collaboration system where users request to join a collaborative-shared session and the request is approved or denied by a participant in the currently in the session (Sarin pg 38, Col 1, ¶ 1). Thus, given the teachings of Sarin, it would have been obvious to one of ordinary skill in the art to design the Paroz system to allow a user already connected to a console device to accept or reject another user's request for a shared session, in order to allow a user already connected to a console device to restrict access to the shared session on a case by case basis.

In considering claim 3, Paroz discloses the method of claim 1, where the shared session is started from a remote location (Col 8, lines 40-42).

10. In considering claim 6, Paroz discloses the method of claim 7 wherein the console devices are computer systems (Col 8, lines 40-42).

11. Claims 2 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al. (U.S. Patent Number 6587125, hereinafter "Paroz") and Powderly et al. (U.S. Patent Number 6,560,641, hereinafter "Powderly") and Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld") and Sarin et al. ("Computer-based real-time conferencing systems", hereinafter "Sarin").

In considering claims 2 and 7-8, Paroz discloses a method for managing a plurality of console devices over a network, comprising the steps of:

- providing a plurality of console devices interconnected over a hardwired network (Figure 1, Component 17) (Col 7, lines 51-54, first computing devices);
- checking an availability of one of the console devices (Col 8, lines 16-18);
- requesting a shared session of the checked console device (Col 8, lines 12-15);
- starting the shared session (Col 8, lines 19-24) via an addressable connection (Col 7, lines 48-51);
- accessing the console device on a peer to peer basis over the hardwired network during the shared session (Col 7, lines 1-4).
- performing system console access of the console device (Col 8, lines 34-39),
- wherein the software layer of the console device can be accessed (Col 8, lines 34-39).

In considering accessing the hardware layer of the console device, Paroz fails to disclose a user is capable of accessing the hardware layer of a console device. However, it was well known in the art at the time of the invention to remotely control both the hardware and software

layers of console device, as evidenced by Powderly. In an analogous art, Powderly discloses remotely controlling a console device where both the hardware and software layers of the console device can be accessed through an adapter card placed in the console device (Powderly Col 5, lines 33-43). In the Powderly system remote access functionality is not provided by any software running within OS but rather through the adapter card placed within the console device which allows for control of the hardware layer. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the adapter card disclosed by Powderly within the Paroz system since such a configuration allows for remote control of the console device even when the operating system of the console device is unavailable (Powderly Col 5, lines 38-43).

In considering serial port networks, while Paroz discloses a method for managing a plurality of console devices over a network as discussed above, specifically over an addressable IP-based network (Col 7, lines 47-54), Paroz fails to discuss the use of a *serial port network*. However, the use of various network connections such as Ethernet, serial, etc. was well known in the art as evidenced by Isfeld. Isfeld discloses a hybrid network system (Col 4, line 56) that uses numerous network connections including serial ports (Col 4, line 62 – Col 5, line 4). Thus, given the teaching of Isfeld, it would have been obvious to one of ordinary skill in the art to design the Paroz system to incorporate a variety of network connections, including serial port networks, in order to accommodate multiple networking and console devices which use different types of network interfaces.

In further considering the creation of shared remote control sessions, Paroz fails to disclose requesting a shared session of a console device from *a current user* of a console device.

However, it is widely known in the art that there are various methods for creating collaborative-shared sessions as evidenced by Sarin. Sarin discloses a collaboration system where users request to join a collaborative-shared session and the request is approved or denied by a participant in the currently in the session (Sarin pg 38, Col 1, ¶ 1). Thus, given the teachings of Sarin, it would have been obvious to one of ordinary skill in the art to design the Paroz system to allow a user already connected to a console device to accept or reject another user's request for a shared session, in order to allow a user already connected to a console device to restrict access to the shared session on a case by case basis.

In considering claim 8, Paroz discloses the method of claim 7 wherein the console devices are computer systems (Col 8, lines 40-42).

12. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al. (U.S. Patent Number 6587125, hereinafter "Paroz") and Powderly et al. (U.S. Patent Number 6,560,641, hereinafter "Powderly") and Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld") and Thompson et al. (U.S. Patent Application Publication Number 2002/0075303, hereinafter "Thompson").

In considering claims 9-11, Paroz discloses a method for managing a plurality of console devices over a network, comprising the steps of:

- providing a plurality of console devices interconnected over a hardwired network (Figure 1, Component 17) (Col 7, lines 51-54, first computing devices);
- requesting a shared session of the checked console device (Col 8, lines 12-15);

- starting the shared session (Col 8, lines 19-24) via an addressable connection (Col 7, lines 48-51);
- accessing the console device on a peer to peer basis over the hardwired network during the shared session (Col 7, lines 1-4).
- wherein the software layer of the console device can be accessed (Col 8, lines 34-39).

In considering accessing the hardware layer of the console device, Paroz fails to disclose a user is capable of accessing the hardware layer of a console device. However, it was well known in the art at the time of the invention to remotely control both the hardware and software layers of console device, as evidenced by Powderly. In an analogous art, Powderly discloses remotely controlling a console device where both the hardware and software layers of the console device can be accessed through an adapter card placed in the console device (Powderly Col 5, lines 33-43). In the Powderly system remote access functionality is not provided by any software running within OS but rather through the adapter card placed within the console device which allows for control of the hardware layer. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the adapter card disclosed by Powderly within the Paroz system since such a configuration allows for remote control of the console device even when the operating system of the console device is unavailable (Powderly Col 5, lines 38-43).

In considering serial port networks, while Paroz discloses a method for managing a plurality of console devices over a network as discussed above, specifically over an addressable IP-based network (Col 7, lines 47-54), Paroz fails to discuss the use of a *serial port network.*

However, the use of various network connections such as Ethernet, serial, etc. was well known in the art as evidenced by Isfeld. Isfeld discloses a hybrid network system (Col 4, line 56) that uses numerous network connections including serial ports (Col 4, line 62 – Col 5, line 4). Thus, given the teaching of Isfeld, it would have been obvious to one of ordinary skill in the art to design the Paroz system to incorporate a variety of network connections, including serial port networks, in order to accommodate multiple networking and console devices which use different types of network interfaces.

In considering the creation of shared remote control sessions, while Paroz discloses a method for requesting a shared session of one of the console devices (Col 10, lines 54-58), Paroz fails to disclose *a current user* of one of the console devices inviting a new user to join a shared session of the console device. However, it is widely known in the art that there are various methods for creating collaborative-shared sessions as evidenced by Thompson. Thompson discloses a collaboration method where a user in a collaborative shared session invites other users to join the shared session (Thompson ¶115, lines 16-21). Thus, given the teachings of Thompson, it would have been obvious to one of ordinary skill in the art to design the Paroz system to allow a user already connected to a console device to invite another user into a shared session, in order to allow a user already connected to a console device to notify other users that a shared session exits and that their presence is requested.

13. Claims 12, 15-18, 20, 21-22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al. (U.S. Patent Number 6587125, hereinafter "Paroz") and Powderly

et al. (U.S. Patent Number 6,560,641, hereinafter "Powderly") and Partridge et al. (U.S. Patent Number 6,160,819; hereinafter "Partridge").

In considering claims 12 and 20, Paroz discloses a system for managing a console device in a network, comprising:

- a system server (web server) (Figure 1, Component 15) (Col 7, lines 47-51);
- a console device connected to system server (Figure 1, Component 17) (Col 7, lines 51-54, first computing device);
- a program product stored on the system server for allowing users to open a shared session and access the console device (mediator) (Col 7, line 64 – Col 8, line 7);
- wherein the software layer of the console device can be accessed (Col 5, lines 42-47).

In considering accessing the hardware layer of the console device, Paroz fails to disclose a user is capable of accessing the hardware layer of a console device. However, it was well known in the art at the time of the invention to remotely control both the hardware and software layers of console device, as evidenced by Powderly. In an analogous art, Powderly discloses remotely controlling a console device where both the hardware and software layers of the console device can be accessed through an adapter card placed in the console device (Powderly Col 5, lines 33-43). In the Powderly system remote access functionality is not provided by any software running within OS but rather through the adapter card placed within the console device which allows for control of the hardware layer. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the adapter card disclosed by Powderly within the Paroz system since such a configuration allows for remote control of the console

device even when the operating system of the console device is unavailable (Powderly Col 5, lines 38-43).

Paroz also failed to disclose that a terminal concentrator server is connected to the system server, a multiplexer is connected to the terminal concentrator server, and the console device is connected to the multiplexer. Nonetheless it was widely known in the art at the time of the invention to connect various devices through a terminal concentrator server and multiplexer, as evidenced by Partridge. In a similar networking system, Partridge disclosed a networking system where console devices (e.g. Figure 1, Computers 102-108) are connected to a multiplexer (Figure 1, Component 112) and the multiplexer is connected to a terminal concentrator server (Figure 1, Component 114) (also see Col 5, lines 49-54). Partridge further disclosed that such a configuration allows for high speed, low latency data transmission and is especially useful in conferencing systems (Col 5, lines 56-59). Thus, given the teachings of Partridge, it would have been obvious to one of ordinary skill in the art at the time of the invention modify the system of Paroz to include a multiplexer and terminal concentrator between the console device and system server, since such a configuration reduces network latency and is especially useful in conferencing systems such as the remote control conferencing system of Paroz.

In considering claims 15 and 24, Paroz discloses that the system server and console devices are connected via an addressable connection (Col 7, line 54). Any added networking components in the system, such as a multiplexer as described above, would be connected via an addressable connection, since Paroz uses addressable connections end to end in his system (Col 7, lines 47-54).

In considering claims 16 and 22, Paroz discloses the systems of claims 12 and 20 wherein the console device is a computer system (Col 6, line 65).

In considering claims 17 and 21, Paroz discloses the systems of claims 12 and 20 wherein the shared session is opened via an addressable connection (Col 7, lines 48-51).

In considering claim 18, Paroz discloses the system of claim 1, wherein the console device is accessed by the users on a peer to peer basis (Col 7, lines 1-4).

14. Claims 13-14, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al. (U.S. Patent Number 6587125, hereinafter "Paroz") and Powderly et al. (U.S. Patent Number 6,560,641, hereinafter "Powderly") and Partridge et al. (U.S. Patent Number 6,160,819; hereinafter "Partridge") as applied to claims 12 and 20 above, and in further view of Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld").

In considering claims 13-14 and 23, while Paroz discloses a method for managing a plurality of console devices over a network as discussed above, specifically over an addressable IP-based network (Col 7, lines 47-54), Paroz fails to discuss the use of a *serial port network*. However, the use of various network connections such as Ethernet, serial, etc. is well known in the art as evidenced by Isfeld. Isfeld discloses a hybrid network system (Col 4, line 56) that uses numerous network connections including serial ports (Col 4, line 62 – Col 5, line 4). Thus, given the teaching of Isfeld, it would have been obvious to one of ordinary skill in the art to design the Paroz system to incorporate a variety of network connections, including serial port networks, in order to accommodate multiple networking and console devices which use different types of network interfaces.

15. Claims 19 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al. (U.S. Patent Number 6587125, hereinafter "Paroz") and Powderly et al. (U.S. Patent Number 6,560,641, hereinafter "Powderly") and Partridge et al. (U.S. Patent Number 6,160,819; hereinafter "Partridge") as applied to claims 12 and 20 above, and in further view of:

- Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld");
- Sarin et al. ("Computer-based real-time conferencing systems", hereinafter "Sarin").
- Thompson et al. (U.S. Patent Application Publication Number 2002/0075303, hereinafter "Thompson").

In considering serial port networks, while Paroz discloses a method for managing a plurality of console devices over a network as discussed above, specifically over an addressable IP-based network (Col 7, lines 47-54), Paroz fails to discuss the use of a *serial port network*. However, the use of various network connections such as Ethernet, serial, etc. was well known in the art as evidenced by Isfeld. Isfeld discloses a hybrid network system (Col 4, line 56) that uses numerous network connections including serial ports (Col 4, line 62 – Col 5, line 4). Thus, given the teaching of Isfeld, it would have been obvious to one of ordinary skill in the art to design the Paroz system to incorporate a variety of network connections, including serial port networks, in order to accommodate multiple networking and console devices which use different types of network interfaces.

In considering the creation of shared remote control sessions, while Paroz discloses a method for requesting a shared session of one of the console devices (Col 10, lines 54-58), Paroz fails to disclose *a current user* of one of the console devices inviting a new user to join a shared

session of the console device. However, it is widely known in the art that there are various methods for creating collaborative-shared sessions as evidenced by Thompson. Thompson discloses a collaboration method where a user in a collaborative shared session invites other users to join the shared session (Thompson ¶115, lines 16-21). Thus, given the teachings of Thompson, it would have been obvious to one of ordinary skill in the art to design the Paroz system to allow a user already connected to a console device to invite another user into a shared session, in order to allow a user already connected to a console device to notify other users that a shared session exits and that their presence is requested.

In further considering the creation of shared remote control sessions, Paroz fails to disclose requesting a shared session of a console device from *a current user* of a console device. However, it is widely known in the art that there are various methods for creating collaborative-shared sessions as evidenced by Sarin. Sarin discloses a collaboration system where users request to join a collaborative-shared session and the request is approved or denied by a participant in the currently in the session (Sarin pg 38, Col 1, ¶ 1). Thus, given the teachings of Sarin, it would have been obvious to one of ordinary skill in the art to design the Paroz system to allow a user already connected to a console device to accept or reject another user's request for a shared session, in order to allow a user already connected to a console device to restrict access to the shared session on a case by case basis.

Therefore Paroz, Powderly, and Partridge in view of Isfeld, Sarin, and Thompson discloses a program product stored on a recordable medium for managing a plurality of console devices interconnected over a hardwired serial port network, which when executed, comprises:

- program code configured to access one of a plurality of console devices (Paroz, mediator Col 7, line 49) on a peer to peer basis (Col 7, lines 1-4) over a hardwired serial port network (Isfeld Col 4, line 64);
- program code configured to invite a user to join a shared session of one of a plurality of console devices (Thompson ¶115, lines 16-21) interconnected over a hardwired serial port network (Isfeld Col 4, line 64);
- program code configured to request a shared session from a current user of one of a plurality of console devices (Sarin pg 38, Col 1, ¶ 1) interconnected over a hardwired serial port network (Isfeld Col 4, line 64);
- program code configured to delegate control of a console device during a shared session (Paroz, Col 10, lines 64-67);
- and program code configured to regain delegated control of a console device (Paroz, Col 10, lines 64-67) and (Sarin pg 38 Col 1, last ¶ completed in Col 2). Paroz does not explicitly state regaining delegated control however Sarin does explicitly state such delegation through a chairperson.
- wherein both the hardware and software layer of the console device can be accessed (Powderly Col 5, lines 33-43).

16. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al. (U.S. Patent Number 6587125, hereinafter "Paroz"), and

- Powderly et al. (U.S. Patent Number 6,560,641, hereinafter "Powderly");
- Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld");

- Sarin et al. ("Computer-based real-time conferencing systems", hereinafter "Sarin").
- Thompson et al. (U.S. Patent Application Publication Number 2002/0075303, hereinafter "Thompson").

Claim 26 is rejected using similar rationale as applied to claims 19 and 25.

Response to Arguments

In response to Applicant's request for reconsideration filed on 2/7/2005, the following factual arguments are noted:

a. Zhu fails to suggest accessing the console device on a peer to peer basis.

b. Paroz does not disclose a terminal concentrator server or multiplexer.

In considering (a), Examiner respectfully disagrees with Applicant. Both the claimed invention and Zhu similarly connect through a server to a remote console device for remote control, system server 11 in the claim invention and remote conferencing server 11 in Zhu. Both implementations employ a client server architecture, thus both fail to establish a true peer to peer connection. Applicant is encouraged to refer to figure 1 of Zhu and figure 1 of the claimed invention which show the analogous architectures utilized.

In considering (b), Examiner agrees with Applicant, however the argument is moot in view of the new grounds of rejection set forth.

Conclusion

2. The prior art made of record, in PTO-892 form, and not relied upon is considered pertinent to applicant's disclosure.

3. This office action is made **NON-FINAL.**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean Reilly whose telephone number is 571-272-4228. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

9/26/2005

Dung C. Dinh
Primary Examiner